KISELEVA, T. M.

6

Synthesis and polymerization of nuclearly substituted dibromostyrenes. M. S. Koton, T. M. Kiseleva, and F. S. Florinskii (... Tech. Inst. Acad. Sci. U.S.S.R., Leningrad). *Zhur.* ... *Priklad.* ... 26, 666-9 (1953). – p-$C_6H_4Br_2$ with AcCl in the presence of $AlCl_3$ gave 2,5-$Br_2C_6H_3Ac$, b_4 120-1°, m. 39-41°, which with $Al(OCHMe_2)_3$ yielded the corresponding *2,5-$Br_2C_6H_3CH(OH)Me$*, b_3 135-40°, dehydrated over $KHSO_4$, or better over Al_2O_3, to 56.5% *2,5-dibromostyrene*, b_2 101-2°, d_{20} 1.7742, n_D^{20} 1.6225; this polymerizes with or without catalyst at a rapid rate at 75-100°, either en masse or in emulsion; the polymer is sol. in halogenated solvents and MePh, not in alcs.; the monomer forms copolymers with styrene. Similarly, o-$C_6H_4Br_2$ gave *3,4-$Br_2C_6H_3Ac$*, b_2 126-30°, m. 31-2°; the *carbinol*, b. 125-30°, yielded over Al_2O_3 44% *3,4-dibromostyrene*, b. ...1-3°, n_D^{20} 1.6254; its polymer is yellowish, sol. in halogenated hydrocarbons, sparingly sol. in MePh, insol. in alcs. This isomer polymerizes less rapidly than the 2,5-isomer and both polymerize less rapidly than the di-Cl analogs. The activation energy of polymerization is 18,396 cal./mole for the 2,5-isomer and the polymer of this has twice the mol. wt. of its isomeric analog. G. M. K.

KISELEVA, T. M. 261T5

USSR/Chemistry - Plastics Jan 53

"The Relationship Between the Structure and the Ability to Polymerize in Vinyl Derivatives of Naphthalene," M.M. Koton and T.M. Kiseleva, Leningrad Physicotech Inst, Acad Sci USSR

DAN SSSR, Vol 88, No 3, pp 465, 466

1-vinylnaphthalene, 2-vinylnaphthalene, 6-vinyl-1,2,3,4-tetrahydronaphthalene, and vinyl-decahydronaphthalene were prepd and the process of their polymerization studied. On the basis of these compds, it was demonstrated that by increasing the no of double bonds in the mol, the no of conjugates

261T5

is increased. This leads to a greater redistribution of the electron atm which enables the double bond in the vinyl group to open up, thus enhancing polymerization. Presented by Acad A.V. Topchiyev 6 Nov 52.

USSR/Chemistry - Physical chemistry

Card 1/2 : Pub. 147 - 7/27

Authors : Koton, M. M.; Kiseleva, T. M.; and Bessonov, M. I.

Title : Radical polymerization of styrene investigated by the marked atom method

Periodical : Zhur. fiz. khim. 28/12, 2137-2141, Dec 1954

Abstract : A study of styrene polymerization by means of marked atoms showed that benzoyl peroxide decomposes during the polymerization of styrene in mass forming $C_6H_5COO\cdot$ radicals, a majority of which attaches itself to the polymer. The benzoate $C_6H_5COO\cdot$ radicals are considered as the basic polymerization initiators. The separation of polymer chains during styrene polymerization in the presence of benzoyl peroxide takes place by the encounter of two growing chains or growing chain and benzoate radical but not by the transfer of chains. It was established that the number of benzoate radicals attaching themselves to the polymer depends upon the conditions of polymerization. An increase in temperature and in concentration of the basic benzoyl peroxide is followed by a reduction in the radical groups in the polymeric molecule and an increase in CO_2 in the gaseous phase. Seven references ; 3 USSR and 4 USA (1942-1953). Tables; graph; illustration.

Zhur. fiz. khim. 28/12, 2137-2141, Dec 1954

Card 2/2

Institution : Academy of Sc. USSR, Institute of High Molecular Compounds, Leningrad

Submitted : January 29, 1954

KISELEVA, T. M.

Polymerization of styrene in the presence of benzoyl peroxide studied by the method of labeled atoms. M. M. Koton, T. M. Kiseleva, and M. I. Bessonov. *Doklady Akad. Nauk S.S.S.R.* 96, 85–8(1954).—Treatment of PhMgBr with $C^{14}O_2$ gave C^{14}-labeled BzOH in 73–6% yield; this heated with PCl_5 gave labeled BzCl which, with H_2O_2, gave $(PhC^{14}O_2)_2$, which was used for initiation of PhCH:CH$_2$ polymerization at 0.7–2% concn. and at 70°, 100°, and 140°. The solid polymer was repptd. from benzene by MeOH and ranged in mol. wt. from 19,400 to 30,600. From 1.3 to 1.73 labeled BzO radicals are found to be present per mol. of the polymer; a much smaller proportion of the peroxide decomp. with evolution of CO_2; this proportion rises with temp. and with increased catalyst concn. G. M. K.

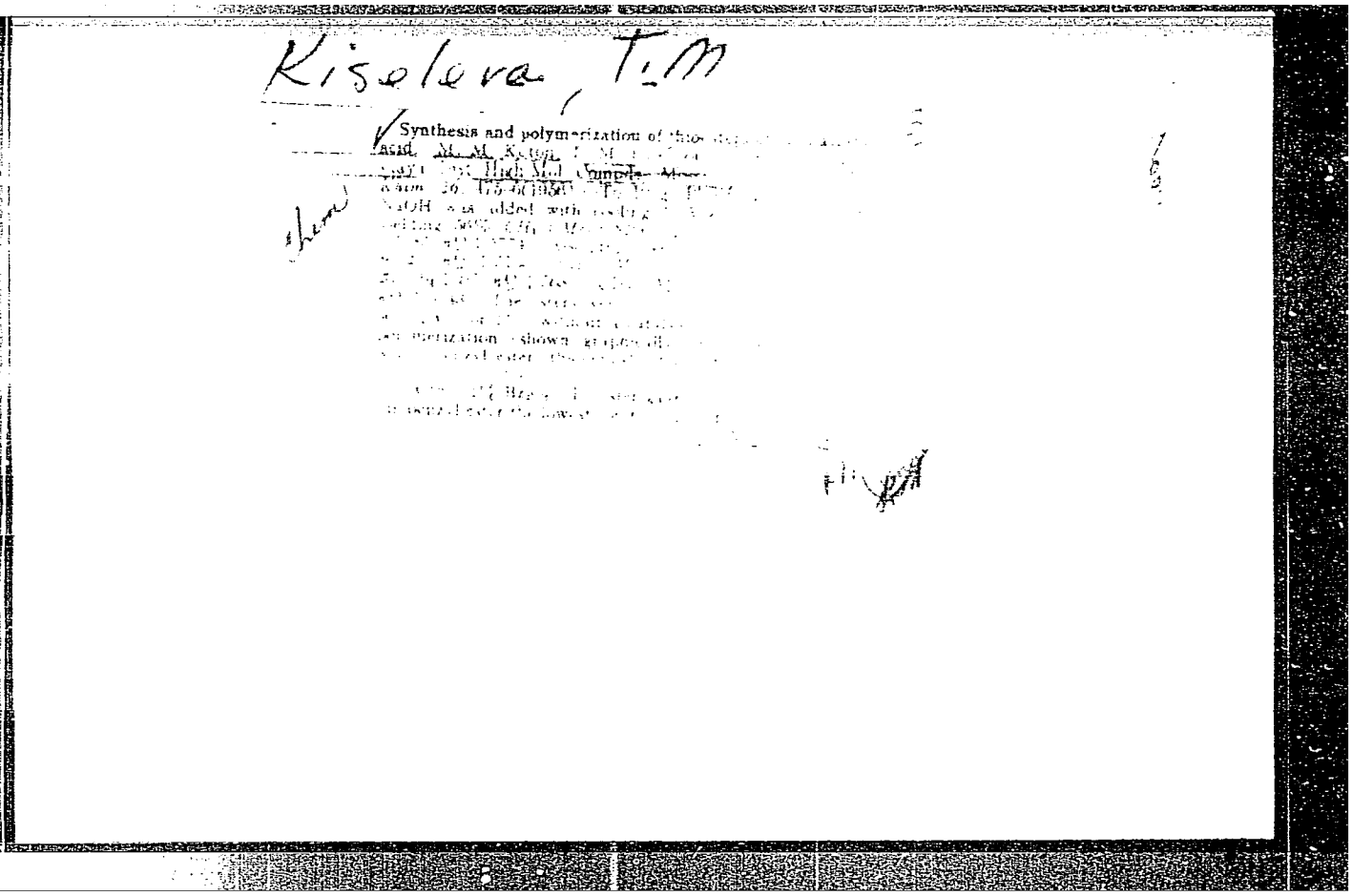
KISELEVA, T.M.

Synthesis of isobutyric acid azodinitrile, labeled with radioactive carbon. M. M. Koton, T. M. Kiseleva, ... Florinskii. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1955, 622-4; *Bull. Acad. Sci. U.S.S.R.* ... 1955 ... [illegible] ... $HClO_4$ was treated at −80° with ... Me MgI yielding, after treatment with 10% HCl and ... of the product from Ag_2SO_4, 78.8% $MeC^{14}O_2H$ isolated as the Ba salt, which was pyrolyzed at 500° to give ...% $Me_2C^{14}O$. This (10.85 g.) and 12.15 g. KCN in 15 ml. H_2O was added to 12.15 g. $N_2H_4.H_2SO_4$ in 50 ml. H_2O yielding 15 g. $(NCC^{14}Me_2NH)_2$, which was filtered off after 12 hrs. This (15 g.) in 50 ml. EtOH was treated with slight heating with 15 ml. concd. HCl and 30 ml. H_2O, and the mixt. chilled and treated with 4 g. Br in 415 ml. H_2O, yielding a ppt. of 8.8 g. $(:NC^{14}Me_2CN)_2$, decomp. 100-3° (from EtOH or Et_2O), specific activity 30 μc/g. G. M. K.

KOTON, M.M.; KISELEVA, T.M.; MESSONOV, M.I.

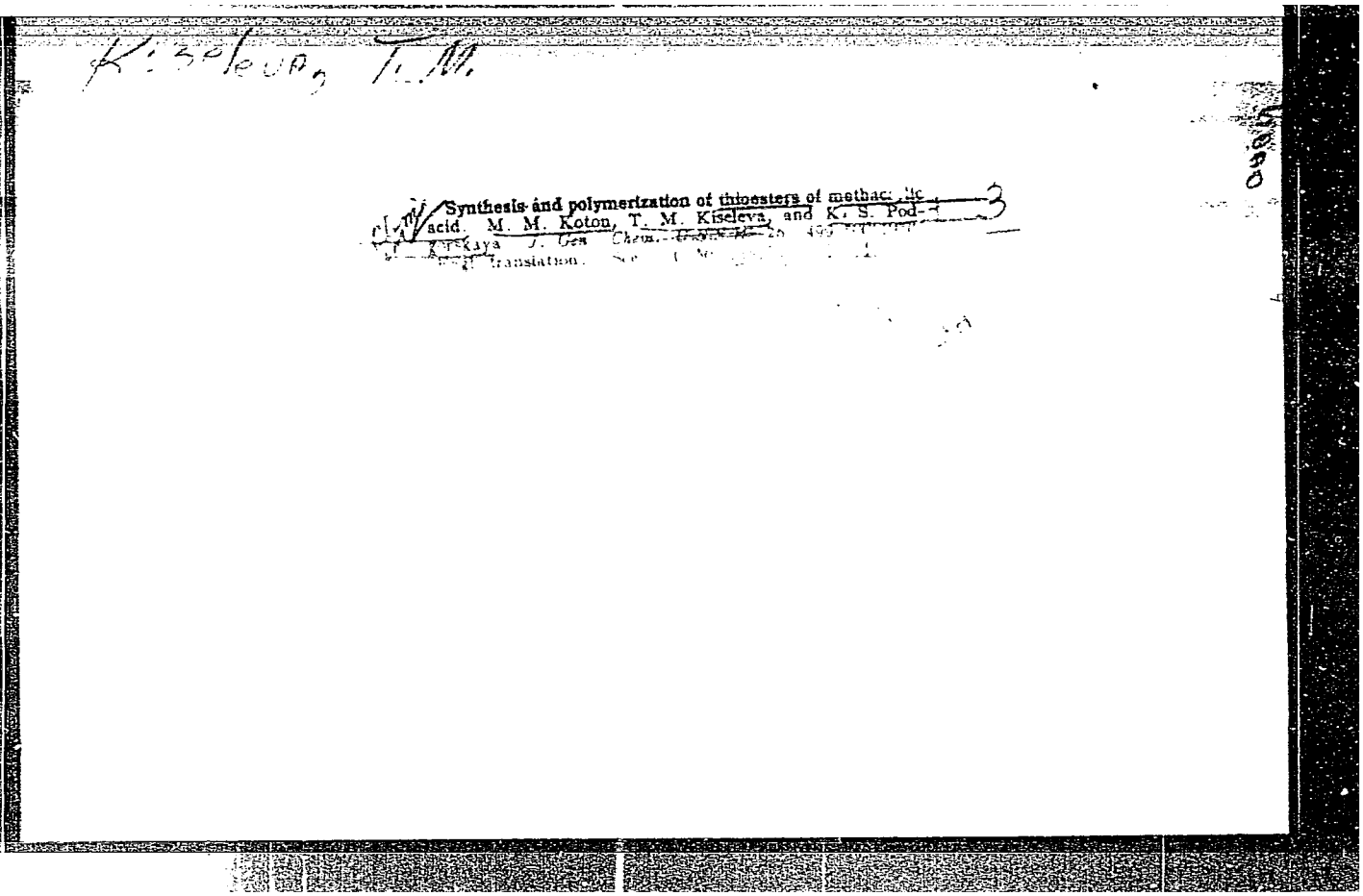
Study of the radical polymerization of styrene by means of tracers.
Zhur.fiz.khim.28 no.12:2137-2141 D '55. (MLRA 8:5)

1. Akademiya nauk SSSR. Institut vysokomolekulyarnykh soyedineniy Leningrad.
(Polymers and polymerization) (Styrene) (Carbon—Isotopes)



Kisolera, T.M

Synthesis and polymerization of



Synthesis and polymerization of thioesters of methac[illegible] acid. M. M. Koton, T. M. Kiseleva, and K. S. Pod[illegible]
[illegible]kaya J. Gen Chem. [illegible]
[illegible] translation. [illegible]

KISELEVA, T.M.

KOTON, M.M.; SOKOLOVA, T.A.; SAVITSKAYA, M.N.; KISELEVA, T.M.

Synthesis of N-substituted methacrylamides. Part 3: N-alkylacryl- and N-alkylmethacrylamides. Zhur. ob. khim. 27 no.8:2239-2243 Ag '57. (MLRA 10:9)

1. Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR.
(Methacrylamide)

R[illegible] J. M.

Reactivity of allyl derivatives of tin. M. M. [illegible] and T. M. Kiseleva (Inst. High Polymers, Acad. [illegible] Leningrad). *Zhur. Obshchei Khim.* 27, 2563-8(1957). Heating $Sn(CH_2CH{:}CH_2)_4$ in an ampul at [illegible] [illegible] diallyl; if the heating is done with [illegible] 160° there is formed an infusible solid [illegible] No change was observed in Ph_3Sn[illegible] boil at 150° but above [illegible] [illegible] [illegible] $CH_2CH{:}CH_2$ and [illegible] [illegible] [illegible] Ph_3SnO while [illegible] propylene, C_6H_6, and Sn[illegible] in [illegible] xylene gave Ph_3Sn[illegible] and HCO_2H gave $HCO_2Sn(OH)_3$, infusible solid. $Ph_3Sn(CH_2CH{:}CH_2)$ and HCO_2H in an ampul at [illegible] propylene, and $HCO_2Sn(OH)_2$ [illegible] HCO_2H at 80° yields propylene, C_6H_6, [illegible] $Sn(CH_2CH{:}CH_2)_4$ and [illegible] [illegible] None of the allyl [illegible] [illegible] with isobutyr[illegible] [illegible] mers.

KISELEVA T. M

AUTHORS: Koton, M. M., Sokolova, T. A., Savitskaya, M. N., Kiseleva, T. M. 79-2-30/64

TITLE: Cases of Polymerization Inhibition of the Monomers From the Arylmethacrylate Series (Sluchai zatrudnennoy polimerizatsii monomerov ryada arilmetakrilatov).

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 2, pp. 417-421 (USSR).

ABSTRACT: In the polymerization of arylmethacrylates it was found that the arylmethacrylates, which in the phenyl radical have the substituends in the ortho-position to the acyl radical, polymerize much more slowly than the corresponding paraisomers, independently of the character of the substituends. The polymerization conditions, the obtained results, as well as various methacrylates are shown in the table. The difference in the polymerization velocity between the methacryl ether of thymol and the methacryl ether of menthol is explained by the fact that the carbon atoms of the cyclohexane ring in the menthol ether are not arranged in one plane and thus the whole molecule is not as rigid as that of the thymol ether. In all given cases the polymerization inhibition can be explained by the screening effect of voluminous groups on the double binding. They disturb the access to the double binding of the free radicals of the benzoylperoxide which are volumi-

Cases of Polymerization Inhibition of the Monomers From the Aryl- 79-2-30/64
methacrylate Series.

nous, too. The experimental conditions as well as the properties of the monomers and polymerization data are given. Special data are given for the methacrylethers of p-cresol, guaiacol, p-metoxyphenol, o - oxybenzylphenyl, thymol, and menthol which hitherto have not yet been described in technical literature.
There are 1 table, and 2 Slavic references.

ASSOCIATION: Institute for High-molecular Compounds AS USSR (Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR).

SUBMITTED: January 11, 1957.

AVAILABLE: Library of Congress.

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5(3) SOV/62-59-5-37/40

AUTHORS: Koton, M. M., Kiseleva, T. M., Florinskiy, F. S.

TITLE: Letters to the Editor (Pis'ma redaktoru)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 5, p 948 (USSR)

ABSTRACT: The authors of this letter inform the editor that for the first time they synthetized several metalliferous styrenes. The synthesis of these metalliferous styrenes was carried out at reaction conditions of Leebrick and Ramsden (Ref 1) under the action of paravinylphenyl magnesium chloride in tetrahydrofuran upon halides of the phenyl derivatives of mercury, lead antimony, bismuth, and phosphorus and upon the alkyl derivatives of tin. For the corresponding reaction equations the following two examples are given:

(I) $CH_2=CH-C_6H_4-MgCl + ClPb(C_6H_5)_3 \rightarrow MgCl_3 + CH_2=CH-C_6H_4-Pb(C_6H_5)_3$

(II) $CH_2=CH-C_6H_4-MgCl + BrHgC_6H_5 \rightarrow MgClBr + CH_2=CH-C_6H_4-HgC_6H_5$

The monomers obtained are crystalline or liquid substances, they polymerize and copolymerize easily with the vinyl monomers in

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forming transparent plastic masses. The properties of the monomers as well as of the poly- and copolymeric substances are further investigated by the authors. There is 1 reference.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High-molecular Compounds of the Academy of Sciences, USSR)

SUBMITTED: January 17, 1959

5(2,3)

AUTHORS: Koton, M. M., Kiseleva, T. M., Paribok, V. A.

SOV/20-125-6-24/61

TITLE: The Synthesis of the Polymerizing Methacrylates of Trialkyl-(aryl) Tin (Sintez polimerizuyushchikhsya metakrilatov trialkil(aril)olova)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 6, pp 1263-1264 (USSR)

ABSTRACT: Data have been lacking on the production of methacrylates of the alkyl- and aryl derivatives of tin (except Ref 1) in most recent time. The authors synthesized for the first time the derivatives mentioned in the title:
1) $CH_2 = C(CH_3)COOSn(CH_3)_3$; 3) $CH_2 = C(CH_3)COOSn(C_4H_9)_3$ and
2) $CH_2 = C(CH_3)COOSn(C_2H_5)_3$; 4) $CH_2 = C(CH_3)COOSn(C_6H_5)_3$.
This synthesis was obtained by the interaction of the corresponding hydroxides of trialkyl-(aryl) tin and of methacrylic acid solved in acetone. The substances produced are white crystalline compounds which are easily soluble in organic solvents. They polymerize readily as solids as well as in the

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The Synthesis of the Polymerizing Methacrylates of Trialkyl-(aryl) Tin

SOV/20-125-6-24/61

solution. Furthermore, a copolymerization with vinyl monomers takes place under the formation of colorless synthetic products. The hitherto solid polymers are transformed into transparent colorless elastic gel (methacrylate of tributyl tin) by prolonging the alkyl radical in tin-containing methacrylates (e.g. during the transition of trimethyl-(ethyl) tin). The usual data are given in an experimental part. Finally, products are discussed which are formed during the interaction between the products mentioned in the title and alcoholic HCl and KOH. The investigation of the properties of the polymers is continued. There are 3 references, 1 of which is Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High-molecular Compounds of the Academy of Sciences USSR) Politekhnicheskiy institut im. M. I. Kalinina (Polytechnic Institute imeni M. I. Kalinin)

PRESENTED: February 9, 1959, by A. N. Nesmeyanov, Academician

SUBMITTED: January 26, 1959

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KISELEVA, T. M.

SOV/4982

International symposium on macromolecular chemistry, Moscow, 1960.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii SSSR, Moskva, 14-18 iyunya 1960 g.; doklady i avtoreferaty. Sektsiya I. (International Symposium on Macromolecular Chemistry Held in Moscow, June 14-18, 1960; Papers and Summaries. Section I.) [Moscow, Izd-vo AN SSSR, 1960] 346 p. 5,500 copies printed.

Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry

Tech. Ed.: T. V. Polyakova.

PURPOSE: This collection of articles is intended for chemists and researchers interested in macromolecular chemistry.

COVERAGE: This is Section I of a multivolume work containing scientific papers on macromolecular chemistry in Moscow. The material includes data on the synthesis and properties of polymers, and on the processes of polymerization, copolymerization, polycondensation, and polyrecombination. Each text is presented in full or summarized in French, English, and Russian. There are 47 papers, 28 of which were presented by Soviet, Rumanian, Hungarian, and Czechoslovakian scientists. No personalities are mentioned. References accompany individual articles.

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S/190/60/002/011/008/027
B004/B060

AUTHORS: Koton, M. M., Kiseleva, T. M., Florinskiy, F. S.

TITLE: Synthesis and Polymerization of Unsaturated Metal-containing Compounds

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 11, pp. 1639 - 1644

TEXT: The authors report on the synthesis, made for the first time, of polymers of styrene, acrylic and methacrylic acid, containing tin, lead, or mercury. The kinetics of polymerization was studied in a 0.3 molar solution in toluene at 65°, 80°, and 105°C. The metal-containing styrene polymers polymerize at a faster rate than nonsubstituted styrene: triphenyl stannyl styrene > triphenyl plumbyl styrene > styrene. Activation energy in triphenyl stannyl styrene was (13.4±0.5)kcal/mole, and in triphenyl plumbyl styrene (15.0±0.8)kcal/mole. Disproportionation occurs in the polymerization of p-phenyl mercuryl styrene. Diphenyl mercury and bis(p-vinyl phenyl)mercury are formed. The latter polymerizes readily on heating to form three-dimensional polymers which are stable up to

Synthesis and Polymerization of Unsaturated Metal-containing Compounds

S/190/60/002/011/008/027
B004/B060

240 - 250°C. Cross linked polymers are formed on copolymerization with styrene. In metal-containing methacrylates the polymerization rate follows the succession: phenyl mercury methacrylate > triphenyl stannomethacrylate > triphenyl plumbomethacrylate > methyl methacrylate. The ability of these compounds to polymerize is explained by the fact that there is either a benzene ring or the polar carboxyl group between the metal atom and the vinyl group. Tin- and lead compounds, in which there is a direct bond between the metal and the vinyl group, do not polymerize. Methacrylates and acrylates were produced by reaction of equimolecular mixtures of metal aryl hydroxides with the respective acids. Triphenyl plumbomethacrylate was prepared from triphenyl plumbohydroxide by heating with methacrylic acid in ethanol; yield 87.9%. Polymerization at 120°C in the mass. The same for triphenyl plumboacrylate, yield 76.4%. Polymerization in decalin at 180 - 190°C. Metallic lead separates on heating above 250°C. Phenyl mercuromethacrylate, production like the lead compound, 81.8% yield, phenyl mercuroacrylate, yield 90%. Mercury compounds irritate the skin. Triphenyl stannoacrylate (80.5% yield) polymerizes in block at 170°C, the methacryl compound (melting point 85-86°C) polymerizes in block or in solution in the presence of azoisobutyric acid-dinitrile.

Card 2/3

5.3700

77377
SOV/79-30-1-38/78

AUTHORS: Koton, M. M., Kiseleva, T. M., Zapevalova, N. P.

TITLE: Reactivity of Unsaturated Compounds of Tin and Lead

PERIODICAL: Zhurnal obshchey khimii, Vol 30, Nr 1, pp 186-190 (USSR)

ABSTRACT: The following compounds were synthesized: allyltriphenyllead (by the method of P. Austin /J. Am. Chem. Soc., 53 3514 (1931)/); allyltrimethyltin /Petrov, A. D., Mironov, V. F., Dolgiy, I. Ye., Izvest. Akad. nauk SSSR. Otdel. khim. nauk, 1956, 11467; vinyltrimethyltin /Seyferth, D., J. Am. Chem. Soc., 79, 515, 2133 (1957); J. Org. Chem., 22, 478 (1957)/; vinyltriphenyltin /ibid./; divinyldiphenyltin /ibid./; and tetravinyltin /ibid./. Experiments with thermal decomposition (which resulted in formation of akylmetal compound, followed by precipitation of metal) were performed by heating 1 g of compound in a sealed ampule at 100-300°. It was found that: (1) vinyl compounds of tin are more stable toward heating than the allyl compounds, which in turn

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are more stable than the allyl compounds of lead; and (2) thermal stability decreases with increasing number of vinyl groups in the molecule of organometallic compound. The stability of vinyl derivatives of tin decreases in the order vinyltrimethyltin (stable up to 250°) > vinyltriphenyltin > divinyldiphenyltin > tetravinyltin (which begins to decompose at 170°.) In respect to their reactivity the investigated radicals can be arranged: allyl > phenyl > vinyl. In reactions of allyltriphenyl lead with HCl (performed in an ampule connected to a gas burette the evolved propylene was absorbed in bromine-CCl_4 solution and the resulting solution was titrated with $Na_2S_2O_3$), the allyl radical is eliminated first, forming propylene:

$$(C_3H_5)Pb(C_6H_5)_3 + HCl \longrightarrow C_3H_6 + (C_6H_5)_3PbCl ,$$

(it was shown earlier /Seyferth, D., J. Am. Chem. Soc., 79, 515, 2133 (1957); J. Org. Chem., 22, 478 (1957); Rosenberg, S., Gibbons, A., et al., J. Am. Chem. Soc., 79, 2137 (1957)/ that in reactions of vinyl derivatives of tin of the formula $R_2Sn(CH=CH_2)_2$ with iodine, HCl and HBr, the radicals can be arranged according to the rate of their elimination in the order phenyl > vinyl > methyl > ethyl > propyl > butyl). Vinyl derivatives of tin do not polymerize under conditions of free radical polymerization --heating in presence of peroxides and azo-compounds (allyltriphenyllead decomposes at 120° in the presence of benzoyl- or tertiary-butyl peroxides with formation of free lead). All of the investigated lead and tin compounds inhibit free radical polymerization (at

120° in benzene solution) of styrene and, especially, methyl methacrylate (see Figs. 1 and 2).

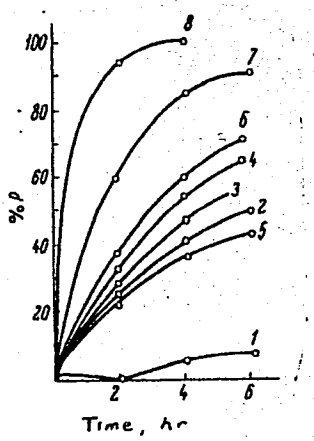

Fig. 1. Polymerization of methyl methacrylate at 120° in presence of 5 weight % of unsaturated compounds of tin: (1) tetraallyltin; (2) allyltrimethyltin; (3) diallyldiphenyltin; (4) allyltriphenyltin; (5) tetravinyltin; (6) vinyltrimethyltin; (7) vinyltriphenyltin; (8) pure methyl methacrylate.

Reactivity of Unsaturated Compounds of Tin and Lead

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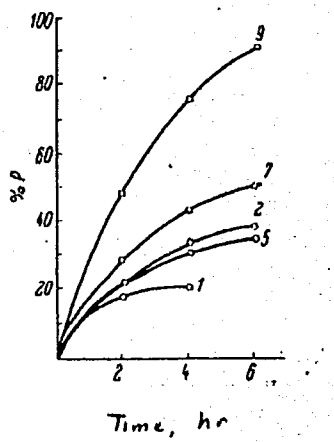

Fig. 2. Polymerization of styrene at 120° in presence of 5% by weight of unsaturated compounds of tin: (1) tetraallyltin; (2) allyltrimethyltin; (5) tetravinyltin; (7) vinyltriphenyltin; (9) pure styrene.

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Reactivity of Unsaturated Compounds of Tin and Lead

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By arranging the compounds shown in Figs. 1 and 2 in order of decreasing inhibiting action: tetraallyltin $\gg$ tetravinyltin $>$ allyltrimethyltin $>$ $>$ diallyldiphenyltin $>$ allytriphenyltin $>$ vinyltriphenyltin $>$ vinyltrimethyltin, it can be seen that the least stable compounds are the most active inhibitors. There are 2 figures; 2 tables; and 9 references, 2 Soviet, 1 German, 1 U.K., 5 U.S. The 5 most recent U.K. and U.S. references are: J. Brydson, Plastics, 1957, 384; H. Gilman, J. Eisch, J. Org. Ch., 20, 763 (1955), J. Am. Chem. Soc., 55, 4689 (1933); D. Seyferth, J. Am. Chem. Soc., 79, 515, 2133 (1957), J. Org. Ch., 22, 478 (1957); S. Rosenberg, A. Gibbons, H. Ramsder, J. Am. Chem. Soc., 79, 2137 (1957); G. Gilman, J. Am. Chem. Soc., 61, 735 (1939).

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Reactivity of Unsaturated Compounds of Tin and Lead

77377
SOV/79-30-1-38/78

ASSOCIATION: Institute of High-Molecular-Weight Compounds of the Academy of Sciences, USSR (Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR)

SUBMITTED: January 14, 1959

Card 7/7

~~5(3)~~ 5.3700 (C)

AUTHORS: Koton, M. M., Kiseleva, T. M.

67950
SOV/20-130-1-23/69

TITLE: Synthesis of Polyorganostannoxanes

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 1, pp 86-87 (USSR)

ABSTRACT: As besides patents there were no publication data to be found on polyorganostannoxanes with a group $\equiv Sn-O-Sn \equiv$ in the principal chain, the authors tried to synthesize these compounds. For this purpose they used the reaction of polycondensation (K. A. Andrianov, Ref 3; Ref 4). The authors investigated the reaction of the diacetates of n- and i-butyl-tin with tetraethoxy-tin. The bond —Sn—O—Sn was formed by the interaction of the acetate- with the ethoxyl group (see Scheme). The polymer (I) was isolated as a bright-yellow powder with a softening temperature of 70-75° for $(i\text{-}C_4H_9)_2Sn(OAc)_2$, or 60-70° for $(n\text{-}C_4H_9)_2Sn(OAc)_2$. The molecular weight of the polymer (I) was 1890-1990 (that of the tetramer was 1936). Thus, a linear, low-molecular (n = 4) polyorganostannoxane develops

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Synthesis of Polyorganostannoxanes SOV/20-130-1-23/69

under the conditions of the experiment. The polymer can be hydrolyzed by heating with water. The ethoxyl- and acetate groups are separated, and an insoluble and nonfusible compound (II) is formed (see Scheme). There are 5 references, 1 of which is Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High-molecular Compounds of the Academy of Sciences, USSR)

PRESENTED: June 20, 1959, by A. N. Nesmeyanov, Academician

SUBMITTED: June 14, 1959

5.3700(c)

69995

AUTHORS: Koton, M. M., Kiseleva, T. M.

S/020/60/131/05/024/069
B011/B117

TITLE: The Synthesis of Polymerizable Unsaturated Organomercury Compounds

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 5, pp 1072-1073 (USSR)

TEXT: No data on the polymerizability of the compounds mentioned in the title have been hitherto published. A vinyl derivative of mercury diphenyl which could be both polymerized and copolymerized was synthetized by the authors (Ref 10) for the first time. Thus, if para-vinyl phenyl magnesium bromide is reacted with phenyl mercury bromide in hydrofuran solution, crystalline phenyl-p-vinyl phenyl mercury (I) (see equation) is obtained. (I) is easily polymerized or copolymerized without initiators or in the presence of isobutyro-azodinitrile. Benzoyl peroxide, catalysts of cationic polymerization, and complex catalysts cannot be used, since all of these enter into chemical reactions with the monomer (I). (I) is disproportionated during polymerization with the formation of diphenyl mercury and of a new unsaturated compound, i.e. bis-para-vinyl phenyl mercury (II) (see equation). (II) can very easily be polymerized. Thereby, an insoluble and infusible cross-linked polymer (III) is formed. (III) is decomposed above 250° with the separation of metallic mercury. In order to prove the correctness of their assumptions, the authors synthetized bis-p-vinyl phenyl mercury by reaction of p-vinyl phenyl magnesium chloride in tetrahydrofuran with mercury

Card 1/2

bromide in form of a crystalline substance (see scheme). The monomer (II) can be easily polymerized to give a polymer having the same structure as (III) such as the product of disproportionation of phenyl-p-vinyl phenyl mercury. (I) and (II) give copolymers with styrene. These copolymers are transparent, colorless, and insoluble substances. There are 10 references, 4 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High-molecular Compounds of the Academy of Sciences, USSR)

PRESENTED: January 20, 1960, by A. N. Nesmeyanov, Academician

SUBMITTED: December 14, 1959

15.8150

28270

S/062/61/000/010/005/018
B117/B101

AUTHORS: Koton, M. M., and Kiseleva, T. M.

TITLE: Synthesis and investigation of the reactivity of polymerizing organometallic derivatives of p-vinylbenzoic acid

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 10, 1961, 1783 - 1788

TEXT: A number of organometallic derivatives of p-vinylbenzoic acid and benzoic acid were synthesized, and their reactivity studied under comparable conditions. For this purpose, the following organometallic compounds were synthesized for the first time: 1) triphenyl-stannyl-p-vinylbenzoate, $(C_6H_5)_3SnOCOC_6H_4CH=CH_2$, melting point 81 - 83°C; 2) triphenylstannyl benzoate, $(C_6H_5)_3SnOCOC_6H_5$, melting point 70 - 72°C; 3) triphenylplumbyl-p-vinylbenzoate, $(C_6H_5)_3PbOCOC_6H_4CH=CH_2$, melting point 136 -138°C; 4) triphenyl-plumbyl benzoate, $(C_6H_5)_3PbOCOC_6H_5$, melting point 117 - 120°C; 5) diphenyl stibine-p-vinylbenzoate, $(C_6H_5)_2SbOCOC_6H_4CH=CH_2$, melting

Card 1/3

Synthesis and investigation...

point 78 - 80°C; 6) diphenyl-stibine benzoate, $(C_6H_5)_2SbOCOC_6H_5$, melting point 121 - 122°C; 7) phenylmercury-p-vinylbenzoate, $(C_6H_5)HgOCOC_6H_4CH=CH_2$, melting point 117 - 118°C; 8) phenylmercury benzoate, $C_6H_5HgOCOC_6H_5$, melting point 97 - 98°C. In reactions of mercury and lead compounds with alcoholic HCl solution the C_6H_5COO radical was found to be more reactive than $CH_2=CH_6H_4COO$ under comparable conditions (-5 - -10°C). When phenyl groups accumulate in the molecule of the organometallic compound, the difference in the reactivities of these radicals becomes insignificant. The reactivity of organometallic derivatives of p-vinylbenzoic acid was studied by a dilatometric investigation of the kinetics of radical polymerization in toluene in the presence of 0.25% by weight of azoisobutyrodinitrile at 80, 90, and 100°C. The polymerization rate can be increased by introducing organometallic substituents into the molecule of p-vinylbenzoic acid, according to the nature of the metal: Hg>Sn>Pb>Sb. The thermal stability of polymers of organometallic derivatives of p-vinylbenzoic acid was studied on the basis of their destruction at 150, 200,

Card 2/3

KOTON, M.M.; KISELEVA, T.M.

Synthesis and study of the reactivity of polymerizing organometallic derivatives of p-vinylbenzoic acid. Izv.AN SSSR. Otd.khim.nauk no.10:1783-1788 O '61. (MIRA 14:10)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Benzoic acid) (Organometallic compounds)

KISELEVA, T.M.; KOTON, M.M.; CHETYRKINA, G.M.

Synthesis of polymerizing organometallic compounds of phthalic acid N-vinyl amide and N-(o,p-carboxyphenyl)acryl (methacryl)amides. Izv. AN SSSR.Otd.khim.nauk no.10:1798-1804 O '62. (MIRA 15:10)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Organometallic compounds) (Phthalamide) (Acrylamide)

ACCESSION NR: AP4043789 S/0190/64/006/008/1496/1497

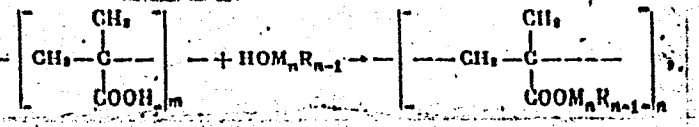
AUTHOR: Koton, M. M.; Kiseleva, T. M.; Arkhipova, I. L.

TITLE: Synthesis of metal-containing polymers by reaction in a poly(methacrylic acid) chain

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 8, 1964, 1496-1497

TOPIC TAGS: metal containing polymer, metal containing polymer synthesis, poly(tri-n-butyltin methacrylate), poly(triphenyltin methacrylate), poly(diphenylantimony methacrylate), poly(triphenyllead methacrylate), poly(phenylmercury methacrylate), thermostable polymer

ABSTRACT: Thermally stable organometallic copolymers which are soluble in organic solvents were synthesized by reacting poly(methacrylic acid) with alkyl- or aryl-metal hydroxides. The copolymers were synthesized in alcohol solution at 70C as follows:



Card 1/3

ACCESSION NR: AP4043789

where M is Sn, Pb, Hg, or Sb, and R is C_6H_5 or C_4H_9. The synthesized copolymers were poly(tri-n-butyltin methacrylate), which is soluble in benzene, toluene, dimethylformamide; poly(triphenyltin methacrylate), which is partially soluble in dimethylformamide; poly(triphenyllead methacrylate), which is insoluble in organic solvents; poly(diphenylantimony methacrylate), which is soluble in dimethylformamide; and poly(phenylmercury methacrylate), which is soluble in dimethylformamide. Depending on the viscosity of poly(methacrylic acid), various copolymers of tri-n-butyltin methacrylate, ranging from rubber-like to solid-type, were obtained. The structure of the synthesized copolymers was proven by the hydrolysis of poly(triphenyltin methacrylate), which yielded pure triphenyltin hydroxide. It is noted that the thermal stability of the copolymers is not lower than that of homopolymers of the respective organometallic monomers. Orig. art. has: 1 formula.

ASSOCIATION: Institut vy*sokomolekulyarny*kh soyedineniy AN SSSR (Institute of Macromolecular Compounds, AN SSSR)

Card 2/3

ACCESSION NR: AP4043789

SUBMITTED: 04Oct63 ATD PRESS: 3092 ENCL: 00

SUB CODE: GC NO REF SOV: 002 OTHER: 001

Card 3/3

L 34104-66 EWT(m)/EWP(j)/T WW/JWD/RM
ACC NR: AP6008713 SOURCE CODE: UR/0079/65/035/011/2036/2037

34
D

AUTHOR: Koton, M. M.; Kiseleva, T. M.

ORG: Institute of High Molecular Compounds, Academy of Sciences SSSR (Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR)

TITLE: Reactions of dimagnesium organic compounds with metal halides and organometallic compounds

SOURCE: Znurnal obshchey khimii, v. 35, no. 11, 1965, 2036-2037

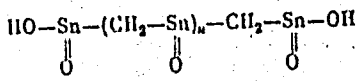
TOPIC TAGS: organosilicon compound, organotin compound, organolead compound, organomagnesium compound

ABSTRACT: Reactions of $BrMgCH_2MgBr$ (I) with stannic chloride (II), diphenyltin dichloride (III), diphenyllead diacetate (IV), and dimethylsilicon dichloride (V) in ether and tetrahydrofuran were studied. Most attention was devoted to the reaction of (I) with (II), which is represented as

$$BrMgCH_2MgBr + SnCl_4 \longrightarrow Cl_3Sn(-CH_2SnCl_2)_n-CH_2SnCl_3$$

Treatment of compound (VI) with alkali produced the organotin compound (VII):

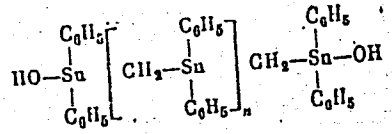
Card 1/3 UDC: 547.419.6: 547.559



Reaction of (I) with (III), (IV), and (V) are similar; with (III), the dichloride

$ClSn(C_6H_5)_2[CH_2Sn(C_6H_5)_2]_2Cl$,

is formed, which under the influence of alkali converts into the corresponding oxide

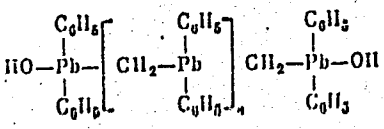


In tetrahydrofuran, (I) and (V) produced

$ClSi-(CH_3)_2[CH_2-Si(CH_3)_2]_2Cl$

L 34104-66
ACC NR: AP6008713

(I) and (IV) produced



Orig. art. has: 1 table.

SUB CODE: 07 / SUBM DATE: 14Jul64 / ORIG REF: 002 / OTH REF: 003

Card 3/3 MT

L 34131-66 EWT(m)/EWP(j) RM

ACC NR: AP6025535 SOURCE CODE: UR/0079/66/036/001/0087/0089

AUTHOR: Koton, M. M.; Kiseleva, T. M.

46
B

ORG: none

TITLE: Synthesis of spirocyclic compounds containing titanium and silicon

SOURCE: Zhurnal obshchey khimii, v. 36, no. 1, 1966, 87-89

TOPIC TAGS: chemical synthesis, titanium compound, silicon compound, polycondensation, pentaerythritol, molecular structure, isomer

ABSTRACT: In the polycondensation of pentaerythritol tetraacetate and pentaerythritol dichlorohydrin with tetra-n-butoxytitanium and tetra-n- and tetra-isobutoxysilane, spirocyclic compounds are formed, containing one to four titanium atoms and one to three silicon atoms in the molecule, depending upon the reaction conditions. In the case of normal and isotetrabutoxysilane, the normal isomer was found to be more reactive. In all cases pentaerythritol tetraacetate was more reactive than pentaerythritol dichlorohydrin. Tetrabutoxytitanium was more active in the reaction with pentaerythritol tetraacetate than either isomer of tetrabutoxysilane.
[JPRS: 35,998]

SUB CODE: 07 / SUBM DATE: 22Oct64 ORIG REF: 003 / OTH REF: 001

Card 1/1 UDC: 547.348+541.64

0916 0903

27900
S/078/61/006/010/008/010
B107/B101

15.2230

AUTHORS: Toropov, N. A., Kiseleva, T. P.

TITLE: The binary system neodymium oxide - alumina, and some data on the system neodymium oxide - alumina - silica

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 10, 1961, 2353 - 2358

TEXT: The authors studied the system Nd_2O_3 - Al_2O_3, using an electric microfurnace with tungsten heater designed by F. Ya. Galakhov, with which temperatures of up to 2200°C could be attained. The experiments were carried out in an argon atmosphere. The samples were studied microscopically using a МИМ-7 (MIM-7) metallographic microscope, roentgenographically, and by infrared spectroscopy using a ИКС-12 (IKS-12) spectroscope. The system Al_2O_3 - Nd_2O_3 has only one compound with a molar ratio of 1:1, and two eutectics: the first at 75 mole% of Nd_2O_3 and 25 mole% of Al_2O_3 and 1800°C, the second at 20 mole% of Nd_2O_3 and 80

The binary system...

mole% of Al_2O_3 and 1750°C (Fig. 1). The compound $Nd_2O_3 \cdot Al_2O_3$ melts congruently at 2070°C. The specific gravity is 7.031 g/cm^3, and the refractive index is 2.025 and 2.015. The infrared spectrum shows two bands: at 800 - 850 cm^{-1}, and at 1000 - 1100 cm^{-1}. The X-ray spacings are given in a table. The authors further examined the question whether an addition of Al_2O_3 eliminates the miscibility gap in the system Nd_2O_3 - SiO_2. This application of Al_2O_3 as a homogenizing agent has been recommended by Levin and Block (Ref. 3, see below). On the basis of theoretical considerations on the tetrahedral or octahedral coordination of aluminum in the melt, the following points of the ternary system were studied: 3.7 mole% of Al_2O_3, 14.3 mole% of Nd_2O_3, 82 mole% of SiO_2; 2.4 mole% of Al_2O_3, 14.6 mole% of Nd_2O_3, 83 mole% of SiO_2; 7.4 mole% of Al_2O_3, 13.7 mole% of Nd_2O_3, 78.8 mole% of SiO_2. Examination of quenched specimens disclosed that separation into layers had not ceased, but the size of the droplets of the separated phases had been reduced considerably. Aluminum seems to have octahedral coordination in this and in similar systems so

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The binary system...

that it cannot be used as a homogenizing agent. A. M. Kuchumova participated in the experiments. There are 6 figures, 1 table, and 3 non-Soviet references. The three references to English-language publications read as follows: Ref. 1: J. Warshaw, R. Roy. J. Amer. Ceram. Soc., 42, No. 9 (1959); Ref. 2: F. H. Aldred, A. E. White. Transaction of the British Ceramic Society, 58, No. 4, 200 (1960); Ref. 3: E. Levin, S. Block. J. Amer. Ceram. Soc., 41, No. 2 (1958).

SUBMITTED: September 24, 1960

Table X-ray data for $Nd_2O_3 \cdot Al_2O_3$

d	I	d	I	d	I
3.74	40	1.527	61	1.082	8
2.64	100	1.325	23	1.045	9
2.15	43	1.321	25	1.006	23
1.857	55	1.250	18	1.001	17
1.665	33	1.090	5		

Card 3/4

27062
S/080/61/034/003/002/017
A057/A129

15,2330

AUTHORS: Toropov, N. A., Kiseleva, T. P.

TITLE: Synthesis and investigation of neodymium monoaluminate and neodymium silicates

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 3, 1961, 498-501

TEXT: Ceramic properties of neodymium mondaluminate ($Nd_2O_3 \cdot Al_2O_3$), oxyorthosilicate $Nd_2O_3 \cdot SiO_2$, orthosilicate $2Nd_2O_3 \cdot 3SiO_2$, and pyrosilicate $Nd_2O_3 \cdot 2SiO_2$ which compounds were observed in the systems $Nd_2O_3 - Al_2O_3$ and $Nd_2O_3 - SiO_2$, have been investigated in the present work. This research program on a promising new ceramic was started in connection with the development of new branches in science and industry, resulting in the need of new construction materials corresponding to modern requirements. In the literature there are several publications related to ceramic properties of pure rare earth oxides, especially with greater radii of electron capture required in nuclear techniques. Among these are investigations of C. E. Curtis and J. R. Johnson [Ref. 1: J. Am. Cer. Soc., 40, 1, 15-19 (1957)], C. L. Ploetz et al, [Ref. 2: J. Am. Cer. Soc., 41, 12, 551-554 (1958)], and C. E. Curtis and A. G. Tharp [Ref. 3: J.Am. Cer.

Card 1/4

Synthesis and investigation of neodymium ...

Soc., 3, 151-156 (1959)]. In the present experiments (carried out under assistance of A. M. Kuchumova) cylindrical test samples (diameter 15 mm, height 5-10 mm) were made by pressing (2,500 atm) the powdered ground mixtures of oxides after calcination at 800 - 900°C. The samples were fired in different types of ovens (silite, kryptol etc.) and it was observed that magnesite rests must be used for the samples to avoid interaction between the sample and the rest. A special preparation technique of mixtures was also developed in order to effect sintering of the samples. The initial silicate mixtures were obtained by co-precipitation from solutions, and thus fine disperse powders were prepared lowering herewith the sintering temperature for 200 - 250°C. Nd_2O_3 was dissolved in diluted HNO_3 and mixed with ethylsiliconester. After reaction the obtained precipitate was dried, calcinated (to remove nitrogen oxides), ground and test samples were prepared by pressing. No satisfactory sintering could be effected by firing the test samples in a silite oven at 1,500°C for several hours. Thus 1-2% admixtures of CaF_2, Na_2SiF_6, MgO, and also B_2O_3 (for aluminate samples only) were tested as mineralizers, i.e., fluxes. Elasticity of the obtained samples was determined by the ultrasonic wave method on a УЗИС-6 (UZIS-6) assembly, and microhardness on a ПМТ-3 (PMT-3) apparatus with diamond cone. The polished samples were also investigated on a МИМ-7 (MIM-7) metallographic microscope,

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Synthesis and investigation of neodymium ...

and a homogeneous structure was observed, except for the orthosilicate samples. It is shown in tables that the best results with respect to properties of the obtained ceramics were obtained with 1-2% CaF_2 admixtures. The least effective flux was Na_2SiF_6. It can be seen from the tabulated data that ceramic properties of neodymium monoaluminate exceed those of the silicates. Thus the modulus of elasticity is twice as high as that of porcelain, glass, magnesite refractories or chamotte. The speed of propagation of elastic deformation (5,964 m/sec) exceeds that in iron, steel, granite, glass and porcelain. The monoaluminate has a high thermal resistance (fusing point 2,070°C) and high microhardness (1,440 kg/mm^2). There is 1 table and 3 non-Soviet-bloc references.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut imeni Lensoveta (Leningrad Technological Institute imeni Lensovet)

SUBMITTED: September 23, 1960

Table: Properties of neodymium silicates and monoaluminate

Legend: (1) material, (2) bulk density (g/cm^3), (3) rate of wave propagation (m/sec), (4) transversal waves, (5) longitudinal waves, (6) coefficient, (7) of sound refraction, (8) Poisson's, (9) modulus (kg/m^2·10^{-5}), (10) of shear, (11) of elasticity, (12) microhardness (kg/mm^2), (13) water absorption (%), (14) apparent porosity, (15) (1,750°C, 40 h) without mineralizer, (16) all (1,800°C for 1h, and 1,600°C for 8 h), (17) (1,500°, 10 h), (18)(1,500°C, 20h), (19)(1,600°C, 20 h), (20)(1,600°C, 40 h) without mineralizer

Card 3/4

S/081/62/000/004/046/087
B156/B138

AUTHORS: Toropov, N. A., Kiseleva, T. P.

TITLE: Neodymium silicates

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1962, 377, abstract 4K192 (Tr. Leningr. tekhnol. in-ta im. Lensoveta', no. 52, 1961, 76 - 88)

TEXT: An SiO_2 - Nd_2O_3 equilibrium diagram has been investigated and plotted, and three neodymium silicates synthesized: $Nd_2O_3 \cdot SiO_2$, $2Nd_2O_3 \cdot 3SiO_2$ and $Nd_2O_3 \cdot 2SiO_2$. The first two silicates melt congruently at 1980 and 1960°C respectively, the third silicate melting incongruently at 1750°C. The densities of these silicates, found by pycnometer, are 4.476, 4.424 and 5.242 g/cm^3 respectively. [Abstracter's note: Complete translation.]

Card 1/1

KISELEVA, T.P.; FEDCHUN, M.S.; LATYPOV, A.A.; BABADZHANOV, P.B.; RUSSO, Yu.D.; CHUPRINA, R.I., nauchnyy sotrudnik

Results of photographic observations of artificial earth satellites. Biul.sta.opt.nabl.isk.sput.Zem. no.9:16-24 '59. (MIRA 13:3)

1. Glavnaya(Pulkovskaya)Astronomicheskaya observatoriya AN (SSSR (for Kiseleva). 2. Glavnaya Astronomicheskaya observatoriya AN USSR, Kiyev, nachal'nik stantsii nablyudeniy (for Fedchun). 3. Tashkentskaya astronomicheskaya observatoriya AN UzSSR, nachal'nik fotograficheskoy stantsii (for Latypov). 4. Institut astrofiziki AN Tadzhikskoy SSR, Stalinabad, nachal'nik stantsii fotonablyudeniy iskusstvennogo sputnika Zemli (for Babadzhanov). 5. Odesskaya astronomicheskaya observatoriya, nachal'nik stantsii nablyudeniy iskusstvennogo sputnika Zemli (for Russo). 6. Astrosovet AN SSSR (for Chuprina).
(Artificial satellites--Tracking)

KISELEVA, T. P.

Observation of Alcock's comet (1959e) on the short-focus astrograph at Pulkovo. Astron.tsir. no.205:5 O '59. (MIRA 13:6)

1. Glavnaya astronomicheskaya observatoriya, Pulkovo.
(Comets--1959)

KISELEVA, T.P.

Photographic positions of Giacobini-Zinner's comet (1959b) according to observations on a short-focused astrograph in Pulkovo. Astron.tsir. no.208:6 Ja '60. (MIRA 13:11)

1. Glavnaya astronomicheskaya (Pulkovskaya) observatoriya AN SSSR.
(Comets--1959)

S/035/62/000/002/004/052
A001/A101

AUTHORS: Bronnikova, N. M., Kiseleva, T. P., Koroleva, L. S., Chudovicheva, O. N.

TITLE: Precise positions of asteroids according to Pulkovo photographic observations

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 2, 1962, 18, abstract 2A172 ("Tr. Gl. astron. observ. v Pulkove", 1961, v. 73, 133-146, English summary)

TEXT: The authors give 223 positions [α, δ (1950.0), O-C] of 8 selected asteroids: Ceres-1, Pallas-2, Juno-3, Vesta-4, Hebe-6, Iris-7, Melpomene-18, Harmonia-40. Observations were carried out during 1957 - 1959 by means of a normal astrograph; plates were measured on devices of Repsold and КИМ-3 (KIM-3) The authors present the list of fundamental stars and "relationships".

L. N.

[Abstracter's note: Complete translation]

Card 1/1

BRONNIKOVA, N.M.; KISELEVA, T.P.; KOROLEVA, L.S.; CHUDOVICHEVA, O.N.

Precise positions of minor planets from photographic observations at Pulkovo. Trudy GAO Ser.2 73:135-146 '61. (MIRA 15:1)
(Planets, Minor)

ACCESSION NR: AR4008350 S/0269/63/000/012/0016/0016

SOURCE: RZh. Astronomiya, Abs. 12.51.146

AUTHOR: Kiseleva, T. P.

TITLE: Preliminary results obtained in the application of a short-focal astrograph to the astrometric observations of Mars

CITED SOURCE: Tr. 15-y Astrometr. konferentsii SSSR, 1960. M.-L., AN SSSR, 1963, 125-127.

TOPIC TAGS: Mars, Mars astrometry, double astrograph, short focal astrograph, Mars brightness, astrometric observation, celestial body motion, celestial body position, phase effect method

TRANSLATION: A description is given of a technique used in observations of Mars by means of an AKD double astrograph (D = 100 mm, F = 700 mm). The planet's brightness was attenuated with a neutral gelatin filter placed in front of the emulsion of the photographic plate and at the center. Because of the smallness of the scale, the proper motion of Mars does not stretch its image at exposures

Card 1/2

ACCESSION NR: AR4008350

of 20 to 60 sec. An analysis of the possible sources of error is given, and a technique for taking the phase effect into account is described. Processing of six pairs of plates showed that the precision of the observations with respect to both coordinates was of the order of ± 0.3". Kh. P.

DATE ACQ: 17Dec63 SUB CODE: AS ENCL: 00

Card 2/2

KISELEVA, T.P.; KOROLEVA, L.S.; SOKOLOVA, V.A.

Precise positions of minor planets from photographic observations at the Cape Observatory. Izv. GAO 23 no.4:180-191 '64. (MIRA 17:9)

L 40917-65 EWT(1)/EWG(v)/EEC(t) Po-4/Pe-5/Pq-4/Pac-4/Pae-2 GS/GH
ACCESSION NR: AT5009181 UR/0000/63/000/000/0125/0127

AUTHOR: Kiseleva, T.P.

TITLE: Preliminary results of the use of a short-focus astrograph for astrometric observations of Mars

SOURCE: Astrometricheskaya konferentsiya SSSR. 15th, Pulkovo, 1960. Trudy. Moscow, Izd-vo AN SSSR, 1963, 125-127

TOPIC TAGS: astronomical instrument, astrometry, shortfocus astrograph, double astrograph, Mars

ABSTRACT: Determinations of the precise position of Mars by photographic methods, using a double short-focus astrograph, were begun in Pulkovo in 1960. The objective diameter was 100 mm and focal length was 700 mm. The brightness of Mars was attenuated by use of a gelatin filter colored by a nonscattering neutral aniline dye. The filter is a film, 10 mm square, glued at the center of a transparent glass plate The transparent plate and filter were placed in a holder in front of a photographic plate. A set of filters of different density was used; these attenuated the brightness of Mars by 5-7 stellar magnitudes. Photographs were taken simultaneously by two cameras. Ten images of

Card 1/4

Mars and stars were obtained on a photographic plate; exposures were 20 to 60 seconds, depending on the brightness of Mars. A total of 68 pairs of plates with Mars were obtained in the winter of 1960-1961; only 6 pairs have been processed at this time. Since a number of different systematic errors can arise in the reduction process photographs were taken of control stars (β Gemini and α Aurigae) situated approximately at the same declination with Mars and close to it in brightness; 12 pairs of control stars were obtained. Computations were made on a "Ural" electronic computer. The phase effect must be taken into account when determining the final coordinates of Mars. The formula for taking the phase effect into account has the form:

$$\xi = \frac{\delta\rho}{\partial\varphi}(i - K), \tag{1}$$

where ρ is the apparent radius of Mars; $K = \cos^2 \frac{\Phi}{2}$, and Φ is the phase angle. In projection on the axes of equatorial coordinates

$$\Delta\alpha \cos\delta = \xi \sin Q,$$
$$\Delta\delta = \xi \cos Q, \tag{2}$$

Q is the position angle of minimum illumination, read counterclockwise from the north. The results of analysis of six pairs of plates are given in a table. Spherical coordinates were computed by the A. A. Kiselev method, programmed for a "Ural" computer. Coordinates were computed using two triangles of reference stars Comparison of the results from the two triangles made it possible to determine the mean error of the position of Mars from two plates dependent on the reference stars

$$\varepsilon_\alpha^* \cos\delta = \pm 0.3,$$
$$\varepsilon_\delta^* = \pm 0.2. \quad (3)$$

Analysis of the convergence of positions, determined from two simultaneous plates, gives the value of the mean error of a position of Mars, dependent for the most part on measurements of Mars itself and to a lesser degree on the measurements of the reference stars (the measurement errors in this case include possible displacements of the emulsion layer).

$$\varepsilon_\alpha^{\odot} \cos\delta = \pm 0.3,$$
$$\varepsilon_\delta^{\odot} = \pm 0.2. \quad (4)$$

L 40817-65
ACCESSION NR: AT5009181

The table in the text gives the differences determined as a result of comparison of the observations with the ephemeris. The systematic part of the difference "observation minus ephemeris" for the period 1-13 November 1960 was: for α +0".6, and for δ +0".2. The mean error of one position of Mars, cited in the table and computed from inner convergence, was:

$$\varepsilon_{\alpha}^{c}\cos\delta = \pm 0''.3,$$
$$\varepsilon_{\delta}^{c} = \pm 0''.3. \quad (5)$$

Due to the limited data used the results can only be considered preliminary. Orig. art. has: 5 formulas and 1 table.

ASSOCIATION: None

SUBMITTED: 6Apr63 ENCL: 00 SUB CODE: AA

NO REF SOV: 000 OTHER: 000

Card 4/4

KISELEVA, T.P.; KOROLEVA, L.S.; SOKOLOVA, V.A.

Exact positions of minor planets computed from photographic observations at Cape Observatory. Biul. Inst. teor. astron. 10 no.1:76-80 '65. (MIRA 18:12)

1. Submitted May 9, 1964.

BRONNIKOVA, N.M.; KISELEVA, T.P.; STRUGATSKAYA, A.A.; CHUDOVICHEVA, O.N.

Exact positions of minor planets computed from photographic observations at Pulkovo. Biul. Inst. teor. astron. 10 no.1: 81-87 '65. (MIRA 18:12)

1. Submitted May 9, 1964.

L 00735-67 EWT(1) GW

ACC NR: AT6015884 SOURCE CODE: UR/2797/65/022/006/0247/0255

AUTHOR: Kiseleva, T. P.

ORG: none

TITLE: Photographic positions of Mars obtained on the short-focus astrograph of the Pulkovo Observatory in 1960 and 1961

SOURCE: Pulkovo. Astronomicheskaya observatoriya. Izvestiya, v. 22, No. 6(176), 1965, 247-255

TOPIC TAGS: observatory, Mars, planet, astronomy, astrograph, photography, orbit, planet

ABSTRACT: Photographic observations of Mars were conducted at the Pulkovo Observatory beginning in November of 1960 and lasting until April of 1961. The observations were performed with the use of a short-focus (d = 100 mm, f - 710 mm) astrograph for the purpose of determining exact positions. The problem of these observations was one of testing the method of simultaneous photographing of the bright planet and weak satellites with the use of a gelatin filter. It was also desired to develop a methodology for processing the photographs obtained, so that both random and systematic relationships of a series of positions would prove informative in adding to existing theories on the motions of Mars. A total of 47 positions of the planet were plotted (see Fig. 1) for the test period. On the photographs Mars appears as a star of the 6th to 7th stellar magnitude. The effect of the phase of

Card 1/2

Card 2/2 fc

ACC NR: AR6019470 SOURCE CODE: UR/0269/66/000/002/0017/0017

AUTHOR: Kiseleva, T. P.

TITLE: Photographic observations of Mars carried out at Pulkovo Observatory using a short focal-length astrograph

SOURCE: Ref. zh. Astronomiya, Abs. 2.51.141

REF SOURCE: Izv. Gl. astron. observ. v Pulkove, v. 22, no. 6, 1965, 247-255

TOPIC TAGS: Mars planet, astrograph, planetary photography

ABSTRACT: Photographic observations of Mars were carried out from November 1960 to April 1961 with the aid of a short focal-length astrograph (D = 100 mm, F = 710 mm). The brightness of Mars was reduced by thin gelatine filters placed in plate holders in front of the plates. In the photographs taken Mars appeared as a 6-7^m star. The effect of the phase of Mars was taken into account. It was investigated by taking photographs of an artificial planet under various light conditions. Forty-seven tabulated positions of Mars are given in the system of base stars in the Y catalog. The positions of Mars obtained were compared with the ephemeris in the Astronomical Year Book of the USSR and also with the tentative ephemeris of Mars by G. M. Clemence and R. L. Duncombe. The root-mean square error of one position calculated on the basis of a comperison with the ephemeris was $\sigma_\alpha = \pm 0^s.36$; $\sigma_\delta = \pm 0''.27$. Bibliography of 9 titles. /Translation of abstract/

SUB CODE: 03

Card 1/1 UDC: 522.71:523.43

ACC NR: AR6019470 SOURCE CODE: UR/0269/66/000/002/0017/0017

AUTHOR: Kiseleva, T. P.

TITLE: Photographic observations of Mars carried out at Pulkovo Observatory using a short focal-length astrograph

SOURCE: Ref. zh. Astronomiya, Abs. 2.51.141

REF SOURCE: Izv. Gl. astron. observ. v Pulkove, v. 22, no. 6, 1965, 247-255

TOPIC TAGS: Mars planet, astrograph, planetary photography

ABSTRACT: Photographic observations of Mars were carried out from November 1960 to April 1961 with the aid of a short focal-length astrograph (D = 100 mm, F = 710 mm). The brightness of Mars was reduced by thin gelatine filters placed in plate holders in front of the plates. In the photographs taken Mars appeared as a 6-7^m star. The effect of the phase of Mars was taken into account. It was investigated by taking photographs of an artificial planet under various light conditions. Forty-seven tabulated positions of Mars are given in the system of base stars in the Y catalog. The positions of Mars obtained were compared with the ephemeris in the Astronomical Year Book of the USSR and also with the tentative ephemeris of Mars by G. M. Clemence and R. L. Duncombe. The root-mean square error of one position calculated on the basis of a comperison with the ephemeris was $\sigma_\alpha = \pm 0^s,36$; $\sigma_\delta = \pm 0'',27$. Bibliography of 9 titles. /Translation of abstract/

SUB CODE: 03

Card 1/1 UDC: 522.71:523.43

KISELEVA, T. S. Cand Chem Sci

Dissertation: "Synthesis of Betha-Cyclohexyl-Betha-Aminopropionic Acid and its Certain Derivatives." 15/12/50

Moscow Order of Lenin Chemicotechnological Inst imeni D. I. Mendeleyev.

SO Vecheryaya Moskva
Sum 71

KISELEVA, T.S.

4

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Organic Chemistry

Synthesis of β-aminocyclohexanepropionic acid and some derivatives. V. M. Rodionov and T. S. Kiseleva. *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1952, 203-300 (Engl. translation).—See *C.A.* 47, 3300g. H. L. H.

KISELEVA, T. S.

Chem

Chem Abs V48
1-25-54
Organic Chemistry

Hexahydrobenzaldehyde. V. M. Rodionov and T. S. Kiseleva. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk, Sintezy Org. Soedinenii, Sbornik* 2, 57-60(1952); cf. Darzens and Lefebure. *Compt. rend.* 142, 714(1906); Allen and Van Allen, *Org. Syntheses* 24, 82(1944); *C.A.* 38, 5812⁸.—To 49 g. cyclohexanone, 61 g. $ClCH_2CO_2Et$, and 100 ml. C_6H_6 was added at −5° over 2 hrs. 34 g. dry EtONa from a container connected to the app. with a wide rubber tube (the temp. of the mixt. must be under 15°). After stirring 4 hrs. the mixt. was allowed to stand 48 hrs., heated 6 hrs. on a steam bath and dild. with H_2O. The org. layer, after washing with H_2O and 3% AcOH, gave Et α,1-epoxycyclohexane acetate b₁₀ 115–15.5°, in 71–3% yield. This (67 g.) was added to 9.2 g. Na in 200 ml. abs. EtOH, the soln. was cooled to 15° and treated with 8 ml. H_2O (much heat evolved); after standing overnight at room temp. the mixt. yielded a ppt. of 93–6% *corresponding Na salt*, which was washed with EtOH and dried at 120°. This (250 g.) in 150 ml. H_2O was treated gradually with 1:1 H_2SO_4 while a stream of steam was passed into the soln. The distillate was collected in a chilled receiver. The org. layer in the distillate was sepd. and the aq. layer was again steam distd. collecting some 300 ml. The condensate was extd. with Et_2O and the combined org. liqds., after drying over $CaCl_2$, gave 42–3% *hexahydrobenzaldehyde*, b₁₀ 77–8°, n_D^{20} 1.4505; *semicarbazone*, m. 167.5–8°. G. M. Kosolapoff

AF 7-19-54

IL'INSKIY, B.V.; KISELEVA, T.S.

Results of application of exhemometer in clinical internal diseases; preliminary communication. Ter. arkh., Moskva 24 no.4:45-52 July-Aug 1952. (CIML 23:2)

1. Of the Hospital Therapeutic Clinic of First Leningrad Medical Institute imeni I. P. Pavlov and of the Therapeutic Sector -- (Head -- Prof. M. V. Chernorutskiy, Active Member AMS USSR), Institute of Physiology imeni I. P. Pavlov (Director -- Academician K. M. Bykov) of the Academy of Sciences USSR.

KISELEVA, V.

Using VP-4 moisture testers for determining the moisture in corn. Muk.-elev.prom.22 no.5:26-27 My '56. (MLRA 9:9)

1.Zaveduyushchaya laboratoriyey Odesskoy oblastnoy kontory Zagotzerno.
(Moisture) (Corn (Maize))

24(3) SOV/55-58-6-9/31

AUTHOR: Kiseleva, V. A.

TITLE: Investigation of the Temperature Influence Upon the Faraday Effect in the Centimeter Wave Range (Izucheniye vliyaniya temperatury na effekt Faradeya v diapazone santimetrovykh voln)

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1958, 13 Nr 6, pp 65-70 (USSR)

ABSTRACT: In this paper investigations are carried out of the rotation of the polarization plane of the H_{11}-wave in magnesium-manganese ferrites of the composition $Mn_xMg_{1-x}Fe_2O_4$ at temperatures of from -196 to +220°; the x had the values 0.0, 0.15, 0.2, 0.3, 0.75 and 1.0. The measurements were carried out on the wave length of 3.2 cm. The following was measured: The angle of rotation of the polarization plane, the ellipticity and the damping of the wave (Table 1 for x = 0.75). A constant magnetic field was applied to the samples in the direction of the wave passing through. On another device, the saturation magnetization within the given interval of temperature and the specific resistance were, in addition, measured at

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Investigation of the Temperature Influence Upon the Faraday Effect in the Centimeter Wave Range

room temperature (Tables 2, 3). The block scheme of the experimental device is shown by figure 1. The angle of rotation was measured by turning the detector knob, and an amplifier of the type 28-I was used as indicator. Ellipticity and damping were measured by means of a calibration attenuator. From measurements of the angle of rotation (Fig 1) the following may be seen: The largest angle of rotation in a field of 400 Oe is obtained by manganese ferrite. In the samples $x = 0$, 0.15 and 0.3 a similar dependence is found. The resonance range shifts with increasing temperature in the direction of lower field values (Fig 3). For the sample with $x = 0.75$ the angle of rotation increases with increasing temperature. The two effects observed with respect to the dependence of the variation of the angle of rotation with temperature are believed to be due to the following causes: 1) In pure manganese ores a reduction of the difference $(M_-)^{1/2}-(M_+)^{1/2}$ occurs if temperature rises, with a decrease in the permeability for circularly polarized waves. 2) Here the case of the inverse effect according to reference 4 is

Investigation of the Temperature Influence Upon the Faraday Effect in the Centimeter Wave Range

ascribed to the reduction of crystalline anisotropy occurring with an increase in temperature and to the magnetic structure of the ferrite. There are 5 figures, 3 tables, and 4 references, 1 of which is Soviet.

ASSOCIATION: Kafedra magnetizma
(Chair for Magnetism)

SUBMITTED: November 10, 1957

AUTHORS: Kiseleva, V. A., Kondorskiy, Ye. I. 20-119-5-23/59

TITLE: Investigation of the Temperature Dependence of Some Properties of Ferrites Within the Range of Centimeter Waves (Izucheniye temperaturnykh zavisimostey nekotorykh svoystv ferritov v diapazone santimetrowykh voln)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 5, pp. 926-928 (USSR)

ABSTRACT: The aim of the present paper is the investigation of the rotation of the polarization plane of a wave of the length 3,2 cm in the nickel-magnesium ferrites $Ni_{1-x}Mg_xFe_2O_4$ at temperatures of from -196° to +220°. The following magnitudes were measured: The angle of rotation of the polarization plane, the ellipticity and the attenuation of the wave that passed the ferrite sample. On this occasion the ferrite sample was in a constant longitudinal magnetic field. The composition of the ferrite samples corresponded to the following values: x: 0,2; 0,3; 0,5; 0,75; 1. The block scheme of the apparatus is shown by a

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diagram. The magnetic fields in the apparatus were caused by a solenoid, and a 51-I generator served as supply feed. The amplifier 28-I served as indicator, with an analizer head connected to it. The measuring of the angle of rotation of the polarization plane was carried out by rotation of the analizer head. The ellipticity and the attenuation were measured by means of a calibrated attenuator using the substitution method. The attenuation was measured only up to field strengths of the order of 1200 Örsted. A diagram shows the dependence of the angle of rotation θ of the polarization plane at a field strength of 1200 Örsted, as well as the dependence of the resonance field strength on the magnitude x characterizing the composition of the ferrite. Another diagram gives the curves for the dependence of the angle θ on the magnetic field strength at various temperatures for a sample with $x = 0,3$. A table contains the values of the ellipticity and of the attenuation for the same sample at various temperatures. In the investigation of other samples of the

Investigation of the Temperature Dependence of Some Properties of Ferrites Within the Range of Centimeter Waves

nickel-magnesium system analogous changes of the angle of rotation of the polarization plane were observed. The fourth diagram shows curves on the dependence of the resonance field strength on the temperature for samples with x = 0,3 and x = 1. From the data given, as well as from the investigation of other samples is concluded that with rising temperature the resonance shifts toward smaller field strengths. This anisotropy obviously is connected with the change of the field of the anisotropy. There are 4 figures, 1 table, and 6 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: October 15, 1957, by I. K. Kikoin, Member, Academy of Sciences, USSR

SUBMITTED: June 11, 1957

BATSMANOVA, Ye.V.; ALEKSANDROVA, P.Ya.; KISELEVA, V.A. (Moskva)

Disulformin for treating acute dysentery. Klin.med. 35 [i.e.34] no.1 Supplement:32 Ja '57. (MIRA 11:2)

1. Iz infektsionnoy gorodskoy klinicheskoy bol'nitsy No.1 (glavnyy vrach N.G.Zaleskver, nauchnyy rukovoditel' G.M.Kapnik)
(DYSENTERY) (SULFANILAMIDE)

KISELEVA, V. A.

USSR/ Miscellaneous - Dump trucks

Card 1/1 : Pub. 12 - 2/14

Authors : Gol'd, B. V., Cand. of Techn. Sc.; Kiseleva, V. A.; and Naydenov, B. F.

Title : Features of dump trucks with sideways tilting bodies

Periodical : Avt. trakt. prom. 3, 2-5, March 1954

Abstract : The technical characteristics of heavy-duty dump trucks with sideways and backways tilting dump-body, are described. Drawings; illustrations.

Institution : Acad. of Sc. USSR, Institute of Machine Construction

Submitted : ...

GOL'D, B.V., kandidat tekhnicheskikh nauk; KISELEVA, V.A.

Reducing the weight of the ZIS-150 truck. Avt.trakt.prom. no.1:3-7 Ja '55. (MIRA 8:4)

1. Laboratoriya dvigateley Akademii nauk SSSR.
(Motor trucks)

VAYS, Anatoliy L'vovich, NIKOLENKO, Viktor Filippovich; KOROLEV, Vasiliy Kuz'mich; KALASHNIKOV, Ivan Fedorovich; KISELEVA, V.A., redaktor; GALAKTIONOVA, Ye.N., tekhnicheskiy redaktor

[Dump trucks with dump trailers; the practices of the 5th truck depot of the Chief Moscow Automobile Transportation Administration] Samosval'nye avtopoezda; iz opyta 5-i avtobazy Glavmosavtotransa. Moskva, Nauchno-tekhn. izd-vo avtotransp. lit-ry, 1956. 53 p. (MLRA 10:3)
(Truck trailers)
(Dump trucks)

GOL'D, B.V.; KISELEVA, V.A.

Automobiles using nonliquid fuel and prospects for their use in the U.S.S.R. Trudy lab.dvig. no.2;19-41 '56. (MLRA 9:9)
(Automobiles--Fuel systems)

KISELEVA, V. A.

GUREVICH, Matvey Yefimovich; SHEKHTER, Georgiy Yevgen'yevich; KISELEVA, V.A., red.; GALAKTIONOVA, Ye.N., tekhn.red.

[Utilizing reserve means in automotive transportation; operating practices of the trucking center of the Kiev Trust No.1 of the Ukrainian Bakery Administration] Ispol'zovanie vnutrennikh rezervov avtokhoziaistva; iz opyta raboty avtobazy no.1 Kievskogo tresta Ukrglavkhleb. Moskva, Nauchno-tekhn.izd-vo avtotransp.lit-ry, 1957. 71 p. (MIRA 10:12)

(Motortrucks--Maintenance and repair)

KHMEL'NITSKIY, A.P.; KISELEVA, V.A.

Comparative investigation of the performance of a spark-ignition engine on liquefied, natural and coke gases and on gasoline. Trudy Lab.dvig. no.5:145-166 '60. (MIRA 14:3)
(Gas and oil engines--Testing)

KISELEVA, V.A.; BORISOV, P.A.; PORYAKO, L.M.; CHAROMSKIY, A.D.

Use of sulphurous fuels for diesel engines. Trudy Inst. dvig. no.6:126-137 '62. (MIRA 16:5)

(Diesel fuels--Analysis)

KISELEVA, V.A., metodist

With minimum expenditure of labor and money. Inform. biul. VDNKH no.2:24 F '64. (MIRA 17:8)

1. Pavil'on "Mekhanizatsiya i elektrifikatsiya sel'skogo khozyaystva" na Vystavke dostizheniy narodnogo khozyaystva.

TSAPLINA, V.M.; DRESVYANNIKOVA, D.F., metodist; KISELEVA, V.A., metodist; KMET', S.K.

Exhibitions and displays of special items. Inform. biul. VDNKH no.8:25-31 Ag '64. (MIRA 17:11)

1. Glavnyy metodist po sel'skokhozyaystvennomu proizvodstvu pavil'ona "Mekhanizatsiya i elektrifikatsiya sel'skogo khozyaystva" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for TSaplina). 2. Pavil'on "Krupnyy rogatyy skot" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Dresvyannikova). 3. Pavil'on "Mekhanizatsiya i elektrifikatsiya sel'skogo khozyaystva" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Kiseleva). 4. Glavnyy veterinarnyy vrach na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Kmet').

KISELEVA, V.A.

Characteristics of the formation of the hydrobiological regimen in Ust'-Kamenogorsk Reservoir. Izv. AN Kazakh. SSR. Ser. biol. nauk 3 no.6:43-46 N-D '65.

(MIRA 18:12)

L 27848-65 EWT(1)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EWA(m)-2/EED(b)-3 Pz-6/Po-4/
Pab-10/Pae-2/Pi-4 IJP(c) AT

ACCESSION NR: AP5005225 S/0057/65/035/002/0253/0258

AUTHOR: Zolototrubov, I.M.; Kiselev, V.A.; Novikov, Yu.M.

TITLE: Current distribution in a coaxial plasma gun

SOURCE: Zhurnal tekhnicheksoy fiziki, v.35, no.2, 1965, 253-258

TOPIC TAGS: plasma, plasma acceleration, plasma gun, current distribution, plasma drift

ABSTRACT: The current distribution within a coaxial plasma gun was determined, high-speed streak photographs of the luminosity within the gun were obtained, and the velocities of the plasma bursts issuing from the gun were measured. The investigations were undertaken in order to clarify the mechanism of plasma acceleration within the gun. The plasma gun was 66 cm long and the outer and inner diameters were 6.5 and 3 cm, respectively. Hydrogen was admitted through an opening in the center of the outer electrode, and the gun was fired by a 20 kV discharge of a 12 microfarad capacitor bank. The maximum discharge current was 105 kA. The current within the gun was measured with the aid of a magnetic probe consisting of two identical coils connected in series opposition and mounted with their centers

Card 1/3

L 27848-65

ACCESSION NR: AP5005225

7 mm apart. The velocities of the ejected plasma bursts were determined by measuring the flight time between two external magnetic probes 50 cm apart. The authors have described their apparatus and methods in more detail elsewhere (ZhTF 34,998, 1964). When the delay between gas admission and capacitor discharge was small (100 microsec) only one principal current sheet was formed which, beginning at the center of the gun, moved toward the mouth at about 1.5×10^7 cm/sec. When the delay was longer, a second current sheet formed nearer the mouth and moved forward much more slowly. The streak photographs also revealed an ionized (luminous) sheet moving in the opposite direction at nearly 10^8 cm/sec. When the delay was greater than 300 microsec, only one burst was observed to issue from the gun, and the velocity of this burst was roughly equal to that of the current sheet (c.1.5 x 10^7 cm/sec). With shorter delays two bursts were observed, of which one traveled with the velocity of the current sheet and the other traveled up to 7 times more rapidly. It is concluded that the slower plasma burst is accelerated by the magnetohydrodynamic force responsible for the motion of the current sheet, but that the faster bursts must be accelerated by a different mechanism. It is suggested that drift forces on the plasma in the crossed fields within the gun may be involved and a mechanism whereby these forces might accelerate the plasma to high velocities is discussed briefly. Orig.art.has: 6 figures

[02]

Card 2/3

L 27814-65

ACCESSION NR: AP5005225

ASSOCIATION: none

SUBMITTED: 24Mar64 ENCL: 00 SUB CODE: ME, EM

NR REF SOV: 003 OTHER: 004 ATD PRESS: 3193

Card 3/3

KISELEVA, V.B.

KISELEVA, V.B.; VAIL, V.S.

[Cooking for children; a book for mothers on the preparation of food for children] Dytiacha kukhnia; knyha dlia materiv pro pryhotovliannia izhi ditiam. Kyiv, Derzh. medychne vyd-vo URSR, 1955. 171 p. (MIRA 11:1)

(CHILDREN--NUTRITION)

KISELEVA, V. B.

Cooking for children; book for mothers on food preparation for children

Leningrad Medgiz, 1953. 174 p.

KISELEVA, V.B.; VAYL', V.S., professor, redaktor; KUDAKOV, A.V., redaktor; KULEVA, M.S., tekhnicheskiy redaktor

[Cooking for children; a book for mothers on the preparation of food for children] Detskaia kukhnia; kniga dlia materei o prigotovlenii pishchi detiam. Pod red. V.S.Vail'. [Leningrad] Gos. izd-vo med. lit-ry, Leningradskoe otd-nie, 1956. 174 p. (MLRA 9:11)
(CHILDREN--NUTRITION)

KISELEVA, V.G.

Flowering of different lilac varieties in the Botanical Garden of the Academy of Sciences of the Ukrainian S.S.R. Biul.Glav. bot.sada no.35:23-27 '59. (MIRA 13:2)

1. Botanicheskiy sad AN USSR.
(Kiev--Lilacs--Varieties)

KISELEVA, V.I.

USSR / Weeds and Weed Control. Herbicides. M

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69510

Author : Peterburgskiy, A.V., Semenova, N.K., Kiseleva, V.I.
Title : Use of Herbicides for Combatting Weeds in Turnipy Onions and Garlic.

Orig Pub : Zemledelie, 1956, 4, No 11, 71-74

Abstract : The treatment of onion sowings after sprouting was conducted by solutions of a triethanolamine salt of dinitrophenol (I) and naphthylphthalaminic acid (II) (in the text it is erroneously named naphthylaminophthalic acid which is not a herbicide). The onions were in the two-leaf stage, and the weeds in the period of budding and blooming. The consumption of solution I of 1000 l/hectare was tested in doses of 8, 15, 16 kg/hectare of the 50% herbicide. Solution II was tested in doses of 6.2; 9.2; 12.3 kg/hectare of the 65% herbicide. The presprouting treatment was conducted by dusting

Card 1/3

USSR/Weeds and Weed Control. Herbicides. M

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69510

Abstract : with isopropylphenylcarbamate (IPC) (III) and naphthylphthalaminic acid (IV). The onions were in the stage of cotyledonous leaf. Doses of III and IV--5; 9.5; 10 kg/hectare of active substance. The effect of II quickly manifested itself. Most sensitive are the weeds of the compositae and chenopodium families (sow-thistle, ragwort, goosefort, pigweed). I destroyed weeds of the convolvulus, labiate, cruciferous and compositae families. A strong action is exerted on chic-weed. The cereals showed no reaction at all to I. Onions suffered most from the sprinkling by I after the appearance of sprouts. I was also used under winter sowings of garlic in the stage of 6-7 leaves in doses of 8 and 16 kg/hectare. In cultivations of 8centners/hectare , the yield of garlic was greater by 14 centners, and in cultivation with 16 kg/hectare, greater by 8 centners/ hectare by comparison with a control without weeding. The greatest

Card 2/3

USSR/Weeds and Weed Control. Herbicides. M

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69510

Abstract : interest is afforded by III and IV, which destroy weeds at the moment of sprouting and show

KISELEVA V. I.

USSR/Weeds and Weed Control

N

Abs Jour : Ref Zhur - Biol., No 9, 1958, No 39615

Author : Peterburgskiy A.V., Semenova N.K., Kiseleva V.I.
Inst : Moscow Agricultural Academy Imeni K.A. Timiryazev
Title : On the Chemical Weeding of Onions and Garlic

Orig Pub : Dokl. Mosk. s.-kh akad. im. K.A. Timiryazeva, 1956, vyp. 25, 197-203

Abstract : Good results were obtained in experiments, conducted on sowings of the Gribov selection station, from application of triethanolamine salt of dinitrophenol at the 0.4-0.6 percent solution concentration, and also from the application of dusts of isopropylphenylcarbamate and naphthylaminophthalic acid before the appearance of onion sprouts. -- Z.I. Zhurbitskiy

Card : 1/1

11

KISELEVA, V.I.

Effect of mineral waters from spring No.2 at Sol'vychegodsk on gastric secretion. Vop.kur. fizioter. i lech.fiz.kul't. 23 no.2: 114-118 Mr-Ap '58. (MIRA 11:6)

1. Iz kafedry normal'noy fiziologii (zav. - prof. M.G.Zaikina) Arkhangel'skogo meditsinskogo instituta.
(SOL'VYCHEGODSK--MINERAL WATERS)
(STOMACH--SECRETION)

ZAKHAROV, N.D.; Prinimali uchastiye: BYKOVA, S.A.; KISELEVA, V.I.; KISELEVA, N.I.; KRYLOVA, N.O.; MAKAROVA, L.V.

Nonsulfur vulcanization of some synthetic rubbers. Part 4: Effect of the nitrile group content on the thermal vulcanization of butadiene nitrile rubbers. Vysokom.soed. 5 no.8:1190-1195 Ag '63. (MIRA 16:9)

1. Yaroslavskiy tekhnologicheskiy institut.
(Rubber, Synthetic) (Vulcanization)
(Nitrile rubbers)

KISELEVA, V. I.

USSR/Medicine-Neuropathology
Medicine-Chorea, Therapy

Feb 49

"Honey Treatment for Chorea (St Vitus' Dance)," N. K. Bogolepov, V. I. Kiseleva, Nerous Diseases Dept, Hosp imeni Ostroumov, ½ p

"Sov Med" No 2

Reveals effedtive treatment with honey for chorea in cases where other methods have failed. Claims that choreatic hyperkinesis disappears gradually, sleep is restored, and emotional condition is improved (patient becomes more restful). Concludes that, though honey treatment gave excellent results in most cases it is more effective if combined with hydro-therapy and medicinal preparations.

PA 46/49T67